



## Arlington Conservation Commission

**Date:** Thursday, August 6, 2020  
**Time:** 7:30 PM  
**Location:** Conducted by Remote Participation

### Agenda

#### 1. Administrative

- a. In accordance with the Governor's Order Suspending Certain Provisions of the Open Meeting Law, G. L. c. 30A, § 20 relating to the COVID-19 emergency, the August 6, 2020 public meeting of the Arlington Conservation Commission shall be physically closed to the public to avoid group congregation. The meeting shall instead be held virtually using Zoom.

Topic: Conservation Commission Meeting  
Time: August 6, 2020 07:30 PM Eastern Time (US and Canada)

***Join Zoom Meeting***

*<https://zoom.us/j/99729770731>*

***Meeting ID: 997 2977 0731***

***Password: 960903***

***Call-in: +1 646 876 9923***

***+1 301 715 8592***

***Meeting number: 997 297 70731#***

Members of the public are strongly encouraged to send written comment regarding any of the hearings listed below to Conservation Agent Emily Sullivan at [esullivan@town.arlington.ma.us](mailto:esullivan@town.arlington.ma.us).

Please read Governor Baker's Executive Order Suspending Certain Provision of Open Meeting Law for more information regarding virtual public hearings and meetings: <https://www.mass.gov/doc/open-meeting-law-order-march-12-2020/download>

- b. Review draft 07/09/2020 minutes.
- c. Review draft 07/19/2020 minutes.
- d. Discuss internal and public comment deadlines.
- e. Review Request for Certificate of Compliance internal checklist
- f. Review 1165R Mass Ave Development draft comment letter
- g. Project Updates: Spy Pond Park Project, Wellington Park Project, Thordnike Place Proposal Update

#### 2. Discussion

a. Regulations Update:Section 33 Stormwater Management

3. Hearings

**Scout Project**

This scout project proposes to restore two trails in Mt. Gilboa using check dams and water bars. The two trails are currently suffering from erosion due to usage and water runoff. This project was originally proposed to the Commission during its 06/04/2020 meeting. During the 06/04/2020 meeting, the Commission requested the following information: a more detailed project proposal with cost estimate and request for funds.



## Town of Arlington, Massachusetts

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### Review draft 07/09/2020 minutes

#### Summary:

Review draft 07/09/2020 minutes.

#### ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	07092020_Minutes_Conservation_Commission.pdf	Draft 07/09/2020 minutes



## **Arlington Conservation Commission**

Date: July 09, 2020

Time: 7:30pm

Location: Conducted through Remote Participation using Zoom

### **Minutes**

Attendance: Commission Members Susan Chapnick (Chair), Dave Kaplan, Pam Heidell, Nathaniel Stevens, Chuck Tirone (Vice Chair), and David White; Associate Commissioners Cathy Garnett and Mike Gildesgame; and Conservation Agent Emily Sullivan. Members of the public included Peter Howard, Rick Chadwick, Jeremy Harchelroad, Jane Hammer, Colin Cooper, Amy Cooper, Trevor Smith, Jeff Thielman, Patrick Herron, Steve Garvin, Brian Rehrig, John Amato, Lori Cowles, Daniel Norman, Matthew Janger, Haipeng Zhu, and Kevin Sanders.

### **06/18/2020 Meeting Minutes**

The Commission discussed edits to the draft 06/18/2020 minutes. D. Kaplan motioned to approve the minutes as edited, N. Stevens seconded, all were in favor, motion approved.

### **Scout Project Proposal: Floating Wetlands**

C. Cooper presented a scout project to install six floating wetlands in Arlington water bodies – two in Spy Pond, two in the McClennen detention basins, and two in Hills Pond. N. Stevens asked what would happen to the floating wetlands in the winter when the ponds freeze. C. Cooper said they would be moved to the shore of the water bodies or removed for the winter. D. White asked how the project would be documented. C. Cooper said the project would be documented through photos and regular reports.

C. Tirone recommended that the project focus on only two water bodies, with more floating wetlands and more plants. C. Cooper said there will be approximately 1 plant per 1 square foot of floating wetland. S. Chapnick agreed that focusing on two water bodies and installing three floating wetlands on each water body would be better.

M. Gildesgame asked if the project would track water quality impacts or ecosystem benefits. C. Cooper said he would not be tracking water quality or ecosystem benefits, but that his ecology class is interested in tracking those components of the project.

E. Sullivan stated that installing floating wetlands in Spy Pond may require additional State permitting because it has a great pond designation. E. Sullivan stated that she would work with the Town Engineer to determine permitting requirements. D. White stated that Hills Pond could benefit from floating wetlands the most.

D. Kaplan motioned to preliminarily approve the project, N. Stevens seconded, all were in favor, motion approved. The Commission requested that C. Cooper submit a revised project proposal with budget, as well as any funding request at a future meeting prior to work beginning.

### **Enforcement Order: 39 Wellington Street**

#### *Documents Reviewed:*

- 1) *Notice of Enforcement Order, dated 08/15/2019*
- 2) *Enforcement Order, dated 08/07/2019*
- 3) *Howard Conservation Project Plan, prepared by A Yard and A Half Landscaping Cooperative, Inc., dated 4/17/2020, revised, not dated*
- 4) *Howard Conservation Project Planting List, prepared by A Yard and A Half Landscaping Cooperative, Inc., not dated, revised, not dated*

#### *Resource Areas:*

- 1) *Spy Pond*
- 2) *100-ft Wetlands Buffer*
- 3) *Adjacent Upland Resource Area*

S. Chapnick provided a summary of the enforcement order. In August 2019, the Commission became aware that Park and Recreation owned land, adjacent to 39 Wellington Street and abutting Spy Pond had been clear-cut of vegetation. This work was not approved by the Park and Recreation Commission or the Conservation Commission. The proposed restoration plan includes a multi-storied plant concept with trees, bushes, shrubs, and flowering plants. The planting list includes native plants with strong root systems to mitigate erosion into Spy Pond and consists of native plants.

An initial proposal was presented to the Commission at its 05/07/2020 meeting. During the 05/07/2020 meeting, the Commission requested a few minor revisions so that the plan was consistent with the planting list. The Commission requested that the plan and planting list be reviewed and approved by the Park and Recreation Commission, as well as reviewed by the Tree Warden. E. Sullivan updated the Commission that the Park and Recreation Commission approved the plan and planting list, and that the Tree Warden had no comment on the proposed trees.

C. Garnett stated that the plants should not be installed prior to 08/15/2020 and that the plants should be water daily once installed. P. Howard confirmed that he would water the plants daily.

### **Request for Certificate of Compliance: 61 Sunnyside Ave MassDEP File #091-0311**

#### *Documents Reviewed:*

- 1) *Notice of Intent for 61 Sunnyside Ave, Arlington, MA, dated May 22, 2019; revised July 8, 2019.*
- 2) *Notice of Intent Packet for 61 Sunnyside Ave, Arlington, MA dated May 22, 2019.*

- 3) *Notice of Intent Narrative for 61 Sunnyside Ave, Arlington, MA dated May 22, 2019; revised June 6, 2019.*
- 4) *Existing Conditions Plan of 61 Sunnyside Ave, prepared by Rick Chadwick, not dated.*
- 5) *Proposed Conditions Plan of 61 Sunnyside Ave, prepared by Rick Chadwick, not dated.*
- 6) *Certified Plot Plan of Land 61 Sunnyside Avenue Arlington, MA, prepared by Medford Engineering and Survey, stamped by Richard J Mede PLS, dated July 2, 2019.*
- 7) *Letter of Map Amendment Determination Document (Removal) for Community No. 250177 Affected Map Panel Number 25017C0417E, for 59/61 Sunnyside Avenue, prepared by the Federal Emergency Management Agency, signed by Luis Rodriguez PE, dated June 4, 2010.*
- 8) *Approval Order of Conditions, issued by the Arlington Conservation Commission, dated 08/07/2020.*
- 9) *Request for Certificate of Compliance, prepared by Medford Engineering and Survey, stamped by Richard J. Mede PLS #36854, dated 05/14/2020.*
- 10) *As-Built Plot Plan for Land 61 Sunnyside Avenue Arlington MA, prepared by Medford Engineering and Survey, stamped by Richard J. Mede PLS #36854, dated 05/14/2020.*

*Resource Areas:*

- 1) *Land Subject to Flooding*
- 2) *FEMA 100 year floodplain*
- 3) *Adjacent Upload Resource Area*
- 4) *200-ft Riverfront Area*
- 5) *Alewife Brook*

R. Chadwick presented the Request for Certificate of Compliance. This project was permitted by the Commission on 08/07/2019 and included building an addition on the back of an existing house, constructing a porous paver patio and driveway, and installing native shrubs and rain barrels.

S. Chapnick recused herself from the hearing due to a conflict of interest.

P. Heidell noted that the porous paver patio looked wider than approved, but its length was the length approved by the Commission. P. Heidell also noted that the porous paver driveway looked wider than approved, but shorter than approved.

E. Sullivan summarized her 07/02/2020 site inspection and recommended that the Commission issue a Certificate of Compliance. N. Stevens motioned to issue the complete Certificate of Compliance with eight ongoing conditions: #40, 41, 42, 43, 44, 45, 46, and 48, P. Heidell seconded, all were in favor, motion approved.

40) This project shall not increase the water surface in the floodplain. At the project's completion, the site must be at the existing grade or less. This shall be a

continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.

41) All plantings shall be native and be installed and maintained according to the standards of the American Association of Nurserymen (AAN). This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.

42) All plantings planted through this project shall be maintained for three years. A survival rate of at least 75% must be maintained for the approved plantings. The Conservation Agent shall be contacted by the Property Owner to conduct annual inspections of the plantings sometime between September 15- November 1 2020, 2021, and 2022.

43) To avoid adding excess nitrogen runoff, the Applicant shall only treat the vegetated area with slow release nitrogen fertilizer. Application of this fertilizer cannot occur in the summer, or after storm events. New plantings shall only be fertilized once, during the initial planting year. No pesticides or rodenticides shall be used to treat pest management issues. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.

44) Pervious surfaces shown on the project plans shall be maintained and not be replaced by impervious surfaces. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.

45) The porous pavers shall be maintained per the manufacturer's Operation and Maintenance Specifications. At minimum, the porous pavers shall be maintained as follows: no winter sanding is permitted on the driveway or patio, and annual vacuum sweeping. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.

46) The approved patio shall not extend 10 feet beyond the existing enclosed porch and shall not extend into the floodplain. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.

48) The approved rain barrels shall be maintained per the manufacturer's Operation and Maintenance Specifications. Rain barrels shown on the project plans shall not be removed. This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.

**Continued Hearing: Notice of Intent: 869 Mass Avenue, Arlington High School  
MassDEP File #091-0323**

*Documents Reviewed:*

- 1) *Notice of Intent for work at Arlington High School, 869 Massachusetts Avenue, Arlington MA prepared by HMFH Architects and Samiotes Consultants, Inc., dated 05/07/2020*
- 2) *Existing Conditions Plan Set for Arlington High School, 869 Massachusetts Avenue, Arlington MA prepared by HMFH Architects and Samiotes*

*Consultants, Inc., stamped by James P Horgan PLS#50302, dated 04/23/2020*

- 3) *Civil Engineering Plan Set for Arlington High School, 869 Massachusetts Avenue, Arlington MA prepared by HMFH Architects and Samiotes Consultants, Inc., stamped by Stephen R Garvin PE#42772, dated 05/07/2020*
- 4) *Sports Fields Plan Set for Arlington High School, 869 Massachusetts Avenue, Arlington MA prepared by HMFH Architects and JJA Sports LLC, stamped by John J Amato PE#34799, dated 05/07/2020*
- 5) *Stormwater Report for Arlington High School, 869 Massachusetts Avenue, Arlington MA prepared by HMFH Architects, Crosby/Schlessinger/Smallridge LLC, and Samiotes Consultants, Inc., stamped by Stephen R Garvin PE#42772, dated 05/07/2020*
- 6) *Supplemental Materials submitted for the 06/04/2020 meeting*

**Resource Areas:**

- 1) *Mill Brook*
- 2) *100-Foot Wetlands Buffer Zone*
- 3) *100-Foot Adjacent Upland Resource Area*
- 4) *200-Foot Riverfront Area*
- 5) *Bordering Land Subject to Flooding*

Per the Commission's 06/04/2020 meeting and the Commission's 06/12/2020 site visit, the Representatives for the AHS NOI reviewed the supplemental materials requested by the Commission, including:

1. impervious area increase calculation in AURA/100-ft Buffer
2. Cornell modeling for stormwater report
3. expanded riverfront area analysis to include 10.5.85 A-H standards
4. alternative analysis for work in the AURA/100-ft Buffer
5. specifications for the possible stormwater quality units that could be installed onsite
6. Engineering Division review of the stormwater quality unit specifications
7. the New York State standard and specifications for artificial turf fields
8. current turf maintenance contract for AHS and whether maintenance includes chemical treatments
9. copy of the SWPPP
10. additional information about the proposed rain gardens
11. more description of site constraints in alternatives analysis
12. landscape plans
13. stormwater O&M summary
14. artificial turf field PAHS report
15. ecological health impact summary for artificial turf
16. climate change resiliency summary for artificial turf
17. urban heat island analysis for artificial turf
18. life cycle evaluation for artificial turf



19. parking lot island reconfiguration to remove curbing for stormwater management
20. feasibility of onsite water capture system to irrigate landscaping
21. invasive plant removal along Mill Brook
22. additional rain garden information regarding maintenance and revised plan to allow heavy rainfall to bypass the rain garden until plantings are established

S. Garvin presented the project proposal and supplemental information.

Arlington High School Principal Matthew Janger presented a comment letter from himself and School Superintendent Kathleen Bodie about the project. M. Janger stated that the site has pre-existing environmental conditions including contamination that have prevented certain project elements including geothermal wells. Additionally, M. Janger stated that the proposed artificial turf fields would benefit the High School's physical education and athletic programs.

P. Heidell recommended that the Applicant look at the feasibility of invasive removal and native planting on the west side of the site near the Department of Public Works. S. Garvin stated that the high school rebuild project can only fund work on the high school property, but the project team could coordinate with the DPW project team to improve this area.

C. Tirone requested a more robust planting plan for the east side of the site where invasive plant removal is proposed. S. Garvin stated that similar to the west side, the project team is limited to the extent of replanting given that there is a parcel of land along the east side of the site that is owned by the Park and Recreation Commission. S. Garvin stated that the project team could coordinate with the Park and Recreation Commission to improve this area.

N. Stevens requested a planting plan for the west and east sides of the site.

P. Herron, representing the Mystic River Watershed Association, presented a comment letter. P. Herron asked the Commission whether there are organic artificial turf materials that could be installed instead of tire crumb artificial turf fields which are being proposed. P. Herron recommended looking at Simmons College's newly renovated Shaw Sports Turf which uses an organic infill material. P. Herron asked whether the proposed stormwater units were designed to catch and remove migrating infill. P. Herron requested that the Applicant conduct a 500-year floodplain analysis of the parts of the project, including the parts of the new proposed building, in the 500-year floodplain. P. Herron also requested that the Commission work with the Applicant to find an area where fundraiser car washes can occur with limited stormwater contamination. P. Herron also requested that the Commission condition that the proposed rain gardens cannot include mulch or use fertilizers.

J. Thielman, Chair of the High School Building Committee, presented a comment letter stating that the project had gone through two years of public engagement, including a

Town-wide vote pertaining to funding. J. Thielman stated that the Building Committee would call Simmons College about the new organic turf field. J. Thielman also stated that this project is on a strict budget and timeline, and that any significant changes to the project will have ramifications to the budget approved by the Town through a town-wide vote.

D. Kaplan asked if there are any thermal impacts on stormwater runoff from the detention system. For example would the artificial turf increase the temperature of runoff which would be exacerbated in the detention system and then have negative downstream impacts. S. Garvin stated that water infiltrates quickly through artificial turf so the runoff's temperature is not increased by the artificial turf. S. Garvin also stated that the proposed stormwater system would slow down water compared to the existing underdrains. J. Amato stated that although the artificial turf fibers heat up, the infill material does not heat up as much, and that by the time water flows out of the stormwater system it would be normalized to ground temperature.

S. Chapnick summarized two papers published by the University of Lowell's Toxic Use Reduction Institute that critique of artificial turf fields. S. Chapnick stated that Massachusetts communities including Marblehead and Springfield are successfully managing natural turf fields organically. S. Chapnick stated that artificial turf fields are not habitat. S. Chapnick also presented her calculations for a life cycle analysis of artificial turf fields compared to natural turf fields and found that natural turf fields cost less over time.

S. Garvin stated that a 500-year floodplain analysis was outside of the requirements of the Wetlands Protection Act and the Arlington Bylaw for Wetlands Protect, and something the Commission does not usually require applicants to conduct.

J. Amato stated that there are shortcomings to organic infill options for artificial turf fields. Shortcomings include poorer performance across all weather types when compared to inorganic infill options. J. Amato stated that organic infill has a promising future, but he does not recommend it at this time given current technologies. Organic infill absorbs more water, which is bad for material longevity and life cycle. J. Amato also stated that water infiltrates better through inorganic infill than organic infill. J. Amato clarified that artificial fields rarely require significant infill reapplications, and that with proper grooming artificial turf fields only need spot infill reapplication. J. Amato stated that since artificial turf fields get three times the use as natural turf fields, the life cycle analysis for artificial turf fields shows that artificial turf fields cost less over time than natural turf fields.

P. Heidell stated that the Commission should respect the intent and programmatic decision implications of the proposed artificial turf fields, and that the Commission can condition a permit so that any installed artificial turf field has minimal impact on the resource areas.

C. Garnett stated that natural turf fields require very intensive and frequent chemical treatments. C. Garnett also stated that natural turf fields require significant irrigation. Based on chemical usage and irrigation needs, C. Garnett stated that there are mitigation benefits to the proposed artificial turf fields.

The Commission discussed whether it should ask the Applicant to continue the hearing to a specially scheduled meeting to review this project only. N. Stevens, C. Tirone, C. Garnett, P. Heidell, D. Kaplan, M. Gildesgame, D. White, and S. Chapnick all agreed in favor of continuing the hearing to a special meeting scheduled for Thursday, 07/16/2020 at 6:30pm. The Applicant requested to continue the hearing to the 07/16/2020 meeting, N. Stevens motioned to approve the continuance, D. Kaplan seconded, all were in favor, motion approved. The Commission requested the following additional materials for the 07/16/2020 meeting:

1. updated west side planting plan limited to the AHS property
2. AURA/Riverfront analysis of west side, similar to east side analysis
3. planting plan for east side where invasive plant removal proposed
4. bioswale planting plan for east side parking lot area
5. consideration for replacing west side area drain with a swale or vegetated conveyance
6. information about whether and how stormwater system filters out artificial turf infill material
7. clarity on previously submitted document regarding climate change summary for artificial turf fields - final paragraph mentions MA DEP performance standards for how turf fields would affect the waters and wetland plantings, please cite these performance standards

D. White motioned to close the Commission meeting, N. Stevens seconded, all were in favor, motioned approved.

Meeting adjourned at 11:30pm.



## Town of Arlington, Massachusetts

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### Review draft 07/16/2020 minutes

#### Summary:

Review draft 07/19/2020 minutes.

#### ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	07162020_Minutes_Conservation_Commission.pdf	Draft 07/16/2020 minutes



## **Arlington Conservation Commission**

Date: July 16, 2020

Time: 7:30pm

Location: Conducted through Remote Participation using Zoom

### **Minutes**

Attendance: Commission Members Susan Chapnick (Chair), Dave Kaplan, Pam Heidell, Nathaniel Stevens, Chuck Tirone (Vice Chair), and David White; Associate Commissioners Cathy Garnett and Mike Gildesgame; and Conservation Agent Emily Sullivan. Members of the public included Jeff Thielman, Steve Garvin, Brian Rehrig, John Amato, Lori Cowles, Daniel Norman, Matthew Janger, Haipeng Zhu, Kevin Sanders, Ryan Katofsky, Kirsii Allision-Ampe, Deneen Crosby, and James Fleming.

### **Continued Hearing: Notice of Intent: 869 Mass Avenue, Arlington High School MassDEP File #091-0323**

#### *Documents Reviewed:*

- 1) *Notice of Intent for work at Arlington High School, 869 Massachusetts Avenue, Arlington MA prepared by HMFH Architects and Samiotes Consultants, Inc., dated 05/07/2020*
- 2) *Existing Conditions Plan Set for Arlington High School, 869 Massachusetts Avenue, Arlington MA prepared by HMFH Architects and Samiotes Consultants, Inc., stamped by James P Horgan PLS#50302, dated 04/23/2020*
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- 5) *Stormwater Report for Arlington High School, 869 Massachusetts Avenue, Arlington MA prepared by HMFH Architects, Crosby/Schlessinger/Smallridge LLC, and Samiotes Consultants, Inc., stamped by Stephen R Garvin PE#42772, dated 05/07/2020*
- 6) *Supplemental Materials submitted for the 06/04/2020 meeting*

#### *Resource Areas:*

- 1) *Mill Brook*
- 2) *100-Foot Wetlands Buffer Zone*
- 3) *100-Foot Adjacent Upland Resource Area*

- 4) 200-Foot Riverfront Area
- 5) Bordering Land Subject to Flooding

S. Chapnick summarized the hearing process for this project thus far. **[Susan, you read a statement here, feel free to include exact phrasing from that, though I don't think you need to include the entire statement].**

Per the Commission's 07/09/2020 meeting, the Representatives for the AHS NOI reviewed the supplemental materials requested by the Commission, including:

1. updated west side planting plan limited to the AHS property
2. AURA/Riverfront analysis of west side, similar to east side analysis
3. planting plan for east side where invasive plant removal proposed
4. bioswale planting plan for east side parking lot area
5. consideration for replacing west side area drain with a swale or vegetated conveyance
6. information about whether and how stormwater system filters out artificial turf infill material
7. clarity on previously submitted document regarding climate change summary for artificial turf fields - final paragraph mentions MA DEP performance standards for how turf fields would affect the waters and wetland plantings, please cite these performance standards

S. Garvin presented the project proposal and supplemental information.

P. Heidell asked for clarification on the western side planting plan. D. Crosby stated that C. Garnett helped developed the planting plan, and the project team could add more native seed mixes for grassy areas within the 25-ft area of the Mill Brook. D. Kaplan suggested that the 25-ft area should be a no mow or low mow area (e.g. mowed once a year). M. Gildesgame seconded D. Kaplan's suggestion.

P. Heidell and N. Stevens asked for clarification regarding which standards the proposed artificial turf met. S. Garvin stated the artificial turf would be in compliance with the following standards:

1. CAM 17 California Administrative Manual, Title 22 (Metals regulation).
2. The ASTM 2765 Standard Specification for Total Lead Content in Synthetic Turf Fibers (Lead regulation).
3. The ASTM 3188 Standard Specification for Extractable Hazardous Metals in Synthetic Turf Infill Materials (Metals regulation).
4. Per and Polyfluoroalkyl Substances (PFAS): EPA Method 537 and NYSDEC Memorandum, March 2019, for testing of PFAS under Part 375 (PFAS regulation)

S. Garvin also stated that the filter pads in the stormwater units are designed to filter out total suspended solids (TSS), and since infill is larger than sediment, the stormwater units will filter out infill prior to stormwater entering Mill Brook.

S. Chapnick stated that the proposed artificial turf fields reduced the amount of natural vegetation and habitat on site. S. Chapnick stated that she did not agree with the climate change resilience and heat island effect memo provided by the Applicant regarding the artificial turf fields. S. Chapnick stated that she thought artificial turf fields should be a larger conversation in Town. S. Chapnick thanked the Applicant for how responsive they have been to the Commission's requests for additional information and materials.

The Commission opened up the hearing to public comment.

J. Fleming asked what the cost differences between artificial turf and natural turf fields are within the first two years of installation. S. Garvin stated that the costs are fairly equal.

K. Allison-Ampe, member of the Arlington School Committee and High School Building Committee, stated that the amount of field use between an artificial turf field and natural turf field is incomparable because artificial turf fields can accommodate significantly more play. K. Allison-Ampe stated that there is a Town-wide problem of limited field space and capacity, and that the proposed artificial turf fields would benefit the entire Town.

B. Rehrig, member of the High School Building Committee, seconded K. Allison-Ampe's comments and thanked the Commission for their thorough review of the project proposal.

R. Katofsky, member of the High School Building Committee, echoed K. Allison-Ampe and B. Rehrig's comments.

M. Janger, Principal of the High School, stated that the artificial turf fields were environmental assets because they do not require the fertilization or irrigation required for natural turf fields. M. Janger also stated that artificial turf fields were educational assets and would have a positive impact on the High School's curriculum and athletic programs.

S. Chapnick asked whether the proposed stormwater system under the artificial turf fields could be installed under a natural turf field. J. Amato stated that a slightly modified stormwater system could be installed under a natural turf field.

E Sullivan summarized the written public comment she had received on this proposal. The following members of the public opposed the proposed artificial turf fields: Kristina Perry, Elizabeth Rocco, Madeline Brambilla, Wyatt LaCoss, Jessi Smolow, James Fleming, Joshua Shalem, Tina Halfpenny, Jeff Sugarman, Maria Hallett, Tim Karcz, Cindy Floyd, Marina Popova, and Dana Teahan. The following members of the public supported the proposed artificial turf fields: Jeff Thielman, Kathleen Bodie, Matthew Janger, and Phil Lasker.

C. Tirone motioned to close the public hearing for 869 Massachusetts Avenue, the Arlington High School MassDEP #091-0323, N. Stevens seconded, all were in favor, motion approved.

The Commission deliberated the project proposal. The Commission discussed possible special conditions, including:

- Including the Commission in conversations about renovating the artificial turf fields when the first life cycle ends
- Invasive plant monitoring in planting areas
- Permitting the project to use cut-and-dab herbicide invasive plant treatment
- No mow or low mow native planting areas

The Commission also discussed at length how to condition the artificial turf fields. S. Chapnick suggested conditioning organic infill. P. Heidell stated she was not comfortable conditioning organic infill per J. Amato's concerns with the material, but thinks organic infill should be considered in the future for artificial turf fields once the technology improves. D. Kaplan stated he did not know about toxicity differences between inorganic and organic fill.

C. Tirone stated that he was comfortable with the proposed artificial turf fields, but would like the High School to return to the Commission in the future when the fields need to be renovated so alternative artificial materials can be considered.

C. Garnett stated that organic infill could increase downstream algae or invasive aquatic blooms, and possibly exacerbate water quality issues.

N. Stevens asked S. Chapnick if the proposed crumb rubber infill material can leach into water. S. Chapnick stated that yes, crumb rubber infill material can leach. N. Stevens stated that he is not comfortable with crumb rubber infill as a long-term solution, but that the High School could return to the Commission prior to renovating the artificial turf fields to consider alternative materials.

S. Chapnick stated that the proposed artificial turf fields were contrary to the Commission's climate change regulations. C. Garnett stated that natural turf fields use a lot of water and fertilizer, so they are not climate resilient either. C. Garnett stated that both options are not climate resilient in some way. C. Garnett also stated that natural turf fields are not good habitat.

S. Chapnick stated that natural turf fields can be managed organically. C. Garnett stated that the Commission needs to consider the Town's maintenance abilities and whether it is practical to make the Town manage a natural field organically. C. Garnett did not think that it was a practical alternative to the proposed artificial turf fields. C. Tirone stated that natural turf fields require periods of rest, and that the Town did not have enough field space to successfully rest natural turf fields if installed at the High School. C. Tirone stated that the project proposed significant stormwater improvements. P. Heidell agreed that stormwater management would be enhanced through the project.



M. Gildesgame stated that the Robbins Farm field has had issues for 1-1.5 years and has been forced to be closed because the Town tried to install an organically managed natural turf fields. M. Gildesgame stated that the High School likely could not afford such a closure.

The Commission asked E. Sullivan to draft a permit with the discussed conditions for the Commission to review during its 07/23/2020 meeting.

N. Stevens motioned to close the Commission meeting, D. Kaplan seconded, all were in favor, motioned approved.

Meeting adjourned at 10:30pm.

DRAFT



## Town of Arlington, Massachusetts

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### Request for Certificate of Compliance internal checklist

#### Summary:

Review Request for Certificate of Compliance internal checklist

#### ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	COC_Internal_Checklist.pdf	Draft COC Checklist



TOWN OF ARLINGTON

MASSACHUSETTS

CONSERVATION COMMISSION

**COC Internal Checklist – Arlington Conservation Agent**

**Project Street Address:**

**DEP File No:**

**Applicant:**

**Permit Issue Date:**

As-Built plan submitted?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
As-Built plan stamped and dated by a licensed professional?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Written summary of changes between approved plan and as-built plan?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Bullet list of Summary of plan changes	•	
Are as-built changes considered minor project changes?	If Yes, proceed to evaluation of Special Conditions	If No, contact Chair/Vice Chair for discussion of next steps
Special Conditions	#          #	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-compliant  <input type="checkbox"/> Compliant <input type="checkbox"/> Non-compliant
Evaluate non-compliance(s) for Special Conditions and contact Applicant for resolution / additional information	<input type="checkbox"/> Applicant submitted additional information <input type="checkbox"/> All Special Conditions compliant	<input type="checkbox"/> Applicant cannot resolve Special Condition # xx; Contact Chair/Vice Chair for discussion of next steps
Agent perform site visit: Date of Site Visit = _____	<input type="checkbox"/> Site visit and site conditions acceptable	<input type="checkbox"/> Site visit and site conditions not acceptable



## Town of Arlington, Massachusetts

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### 1165R Mass Ave Development draft comment letter

#### Summary:

Review 1165R Mass Ave Development draft comment letter

#### ATTACHMENTS:

Type	File Name	Description
		Draft
		Comment
Reference Material	DRAFT_Ltr_ACC_to_BOS_on_1165R_MAss_Ave_MassHousing_Application.pdf	Letter 1165R Mass Ave Development



## TOWN OF ARLINGTON

730 Massachusetts Ave.  
Arlington, MA 02476  
781-316-3012

### ARLINGTON CONSERVATION COMMISSION

August 6, 2020

John V. Hurd, Chair  
Select Board  
730 Massachusetts Avenue  
Arlington, MA 02476

RE: 1165R Massachusetts Ave, Arlington MA  
Comprehensive Permit Site Approval Application

Dear Mr. Hurd and Members of the Board,

The Conservation Commission wishes to provide comments and information regarding 1165R Mass Ave Property, LLC's proposed 130-unit multi-family residential rental development (the "Project") at the approximately 2-acre property located at 1165R Massachusetts Avenue. The Commission hopes this letter assists the Select Board in formulating its comments to MassHousing on the Comprehensive Permit Site Approval Application (the "Application").<sup>1</sup>

1165R Mass Ave Property, LLC submitted its Application to MassHousing to receive Site Approval (also called project eligibility approval) under the Commonwealth's comprehensive permit statute, G.L. c. 40B. As you may know, Site Approval is required before 1165R Mass Ave Property, LLC can file a comprehensive permit application with the Arlington Zoning Board of Appeals. One of the criteria for MassHousing's Site Approval is that "the conceptual project design is generally appropriate for the site on which it is located, taking into consideration factors that may include .... topography, [and] environmental resources, ... " 760CMR 56.04(4)(c).

The Conservation Commission takes no position as to whether the Project is "generally appropriate" for the Property. After a comprehensive permit application is filed with the ZBA, the Conservation Commission will evaluate whether the Project complies with standards in the State's Wetlands Protection Act and the Arlington Bylaw for Wetlands Protection and its regulations.

The Application presents the project at a very conceptual level. The Commission anticipates that more details and additional information about the Project will be provided in the comprehensive permit application filed with the ZBA and any application filed with the Commission for a wetlands permit.

#### **Topography**

The Property varies in elevation by approximately 10 feet across the site.

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<sup>1</sup> The Commission reviewed the 21 page comprehensive permit site approval application submitted to the Select Board and Town Manager Adam Chapdelaine, prepared by Mary Winstanley O'Connor, dated July 1, 2020. The Commission also heard a presentation for the Applicant Team during the Commission's July 23, 2020 meeting.

**Environmental Resource Areas**

Mill Brook bisects the Property and Ryder Brook flows from the Minuteman Bikeway north of the Property to Mill Brook. The Applicant has agreed to submit a Request for Determination of Applicability to the Commission in order to determine the jurisdictional area of Ryder Brook. Due to the location of the brooks, most of the jurisdictional environmental resource areas within the site are the 100-ft Wetlands Buffer, the Adjacent Upland Resource Area, and the 200-ft Riverfront Area. The floodway and floodplain is generally confined to the channelized Mill Brook. The Applicant has also agreed to submit a Request for Determination of Applicability to the Commission in order to determine whether the site is eligible for the Historical Mill Complex exemption under the Wetlands Protection Act.

**Existing Vegetation**

The Property is largely impervious with hardscape (existing: 67.9%) and building (existing: 25.7%). There is very limited open pervious and vegetated space (Existing: 6.4%). The proposed development proposes to reduce the impervious hardscape (proposed: 34.1%), increase the impervious building (proposed: 43.4%), and overall increase the open pervious and vegetated space (proposed: 22.5%). The pervious open space is proposed to include native vegetation enhancements.

**Wildlife Habitat**

Since the Property is largely impervious, it does not currently have productive wildlife habitat. There are no known endangered, threatened, or special concern species onsite.

Please contact the Conservation Commission should you have questions.

Very truly yours,

Susan Chapnick, Chair  
Arlington Conservation Commission



## Town of Arlington, Massachusetts

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### Regulation Update

#### Summary:

Regulations Update:Section 33 Stormwater Management

#### ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	Section_33_Stormwater_Management.pdf	Section 33: Stormwater Management

**Section 33 - Stormwater Management**

A. Work or activity specified in a request for determination of applicability or an application for a permit and subject to the Bylaw shall meet, at a minimum and to the extent practicable, the best management practices for stormwater management as set forth in the Stormwater Standards of the Massachusetts Department of Environmental Protection. The Commission may in its sole discretion require the applicant to provide a runoff plan and calculations using the “Cornell” method, and based on the ten-year, fifty-year and one-hundred-year-flood frequency event period. Calculations shall show existing and proposed runoff conditions for comparative purposes and include a narrative on the proposed project’s impact on climate change resilience of the resource area (see Section 31).

B. The requirements of this section shall be met commensurate with the nature, scope, type, and cost of the proposed project or activity





## Town of Arlington, Massachusetts

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### Scout Project

#### Summary:

This scout project proposes to restore two trails in Mt. Gilboa using check dams and water bars. The two trails are currently suffering from erosion due to usage and water runoff. This project was originally proposed to the Commission during its 06/04/2020 meeting. During the 06/04/2020 meeting, the Commission requested the following information: a more detailed project proposal with cost estimate and request for funds.

#### ATTACHMENTS:

Type	File Name	Description
▢ Reference Material	Schuette_Mt_Gilboa_Presentation.pdf	Scout Project - Mt Gilboa Proposal
▢ Reference Material	MtGilboa_ProjectDescription_updated.pdf	Scout Project - Mt Gilboa Proposal Updated
▢ Reference Material	MtGilboa_Budget_updated.pdf	Scout Project - Mt Gilboa Budget Updated

# Work on the trails in Mt. Gilboa

Eagle project  
Henri Schuette

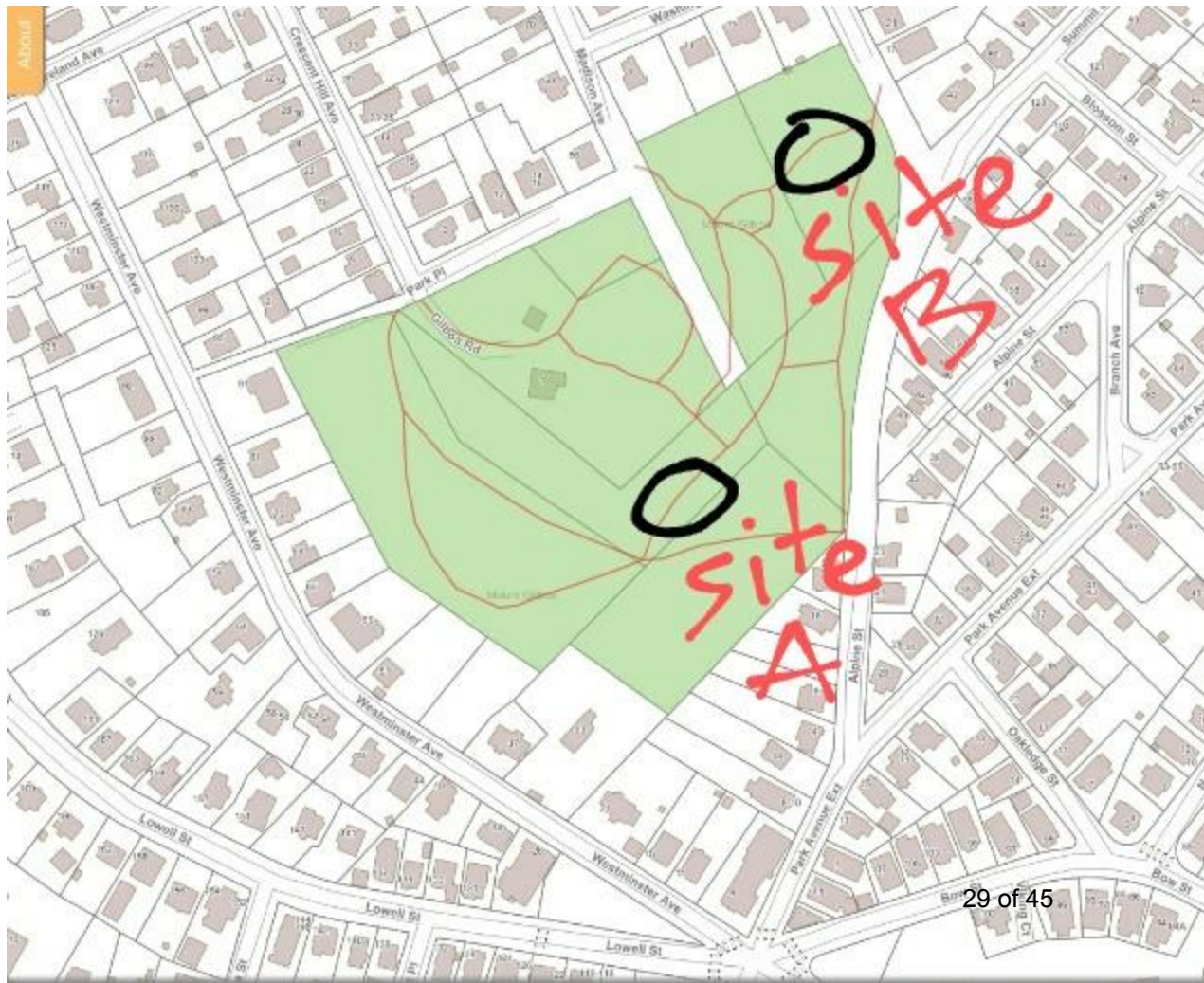
# A little bit about myself

# Problem: The trails are being damaged

- Erosion due to water
- Human impact

## **Why is this important?**

These trails get a lot of use, and if we want the area to be both sustainable and accessible, good trail design is important. The problems I bring up now will only grow larger if left unchecked.



# Site A

The problem: The trail has widened due to human usage.

This has led to the plants on the slope of the hill getting trampled, and now the hillside is suffering from washout.

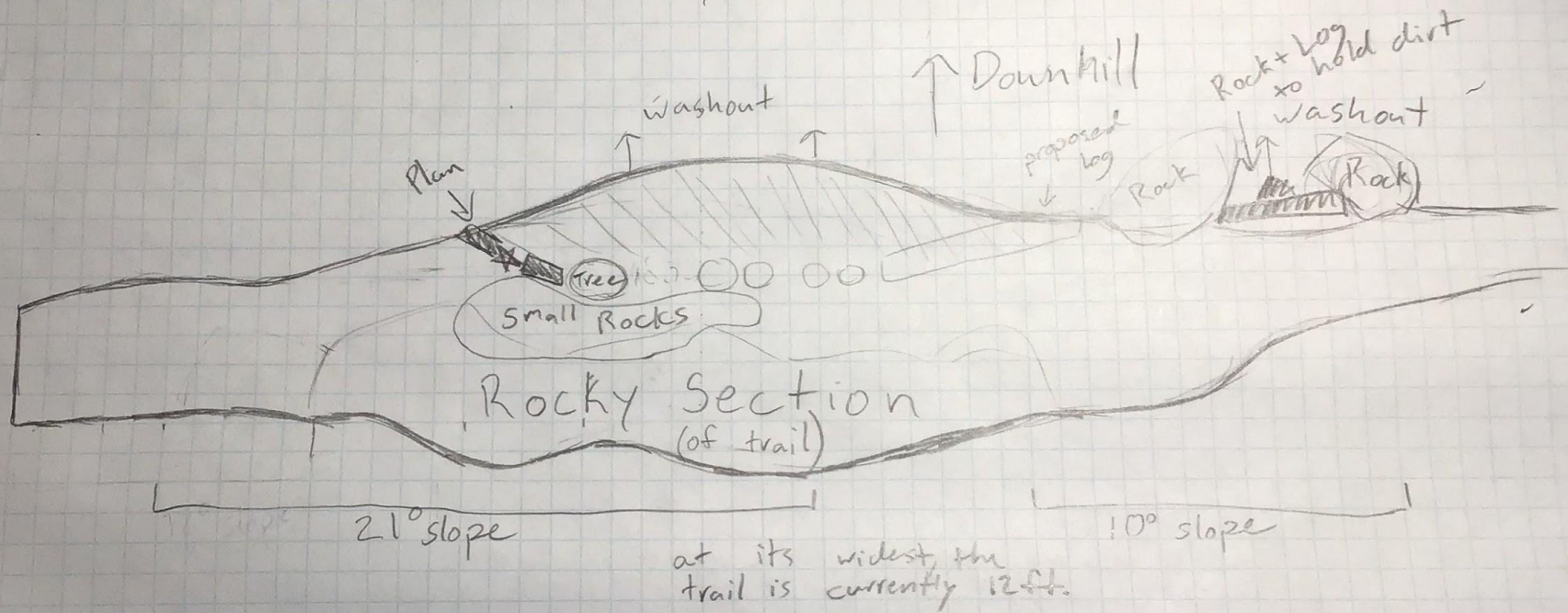
The original trail went over a number of large rocks, and as people moved to avoid said rocks, they widened the trail.







(A)





# Solution: Redefine the trail, and control the washout.

Part 1: Redefining the trail- I will remove some of the small rocks that deter people from following the original trail. I will also place logs, and rocks to define where the boundaries are. (see sketch of site A)

Part 2: Controlling the washout. The aforementioned logs and rocks will do a decent job at preventing further washout. I also plan to purchase native grasses/plants, and seed the areas. This will both remind people where the trail is, and provide a natural method for holding dirt on the slope.

# Work on the trail itself

- People want to avoid the rocky sections
- Part of the work to keep people on the trail would be to make the trail easier.
- To do this, I would remove many of the fist-sized rocks that litter the proper trail.
- (I believe that these are what are making people stray)
- (these rocks could be used in other parts of the project)





# Site B

Problem: Water is causing a channel to be dug in the trail.









The two types of structures I'm  
planning to use

# Check dams

These are basically logs, embedded in the trail, and surrounding earth.

Works especially well here, because the trail already dips below the normal surface level, allowing me to secure the logs well

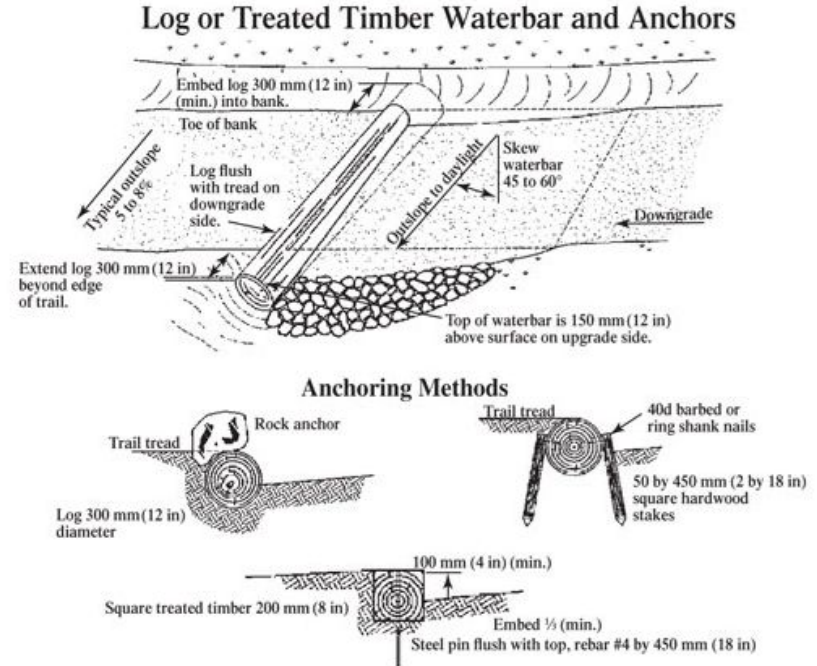
Quote from an AMC source;

“Check dams, a.k.a. check steps, are a way of slowing down erosion, and, building up the tread. The dams tend to slow and hold surface water long enough for the water to deposit the sediment it was otherwise carrying down hill. Eventually, this helps fill in what was once a gully.”



# Water bars

These are intended to divert water off the trail. I believe that if I place one water bar at the base of the steep section, it will be enough to keep the rest of the trail from becoming a streambed.



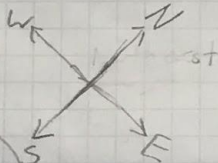


(B)

□ = 1 ft<sup>3</sup>

shaded section = erosion channel

steeper section



start of visible erosion

at its widest,  
Trail is  
≈ 6 ft

grade decreases to 5%

Trail continues  
for 20 or  
50 ft

10° slope

15° slope

logs would  
serve to retain  
particles and slow  
water

↑ angled waterbar

Down hill

Trail



# Materials

I would like to take most of the materials I am using from on site.

There are many fallen trees, and boulders that I could take and use, without affecting the wildlife.

I want to be sure not to negatively affect the ambiance of the place, So I would like to only bring in the materials I need.

I have done work on trail crews in the white mtns, and have taken inspiration for my designs from trail building manuals



# Materials cont.

When it comes to site B, I have a few questions for the committee.

I could aim to take materials from on site, or I could bring in things such as treated lumber, and gravel. The materials I bring in would definitely last longer, and may lead to a better trail, but they would also have more of an impact on the area.

Is there a preference one way?

For my project, I am going to be doing significant work on two sections of trail in the Mt. Gilboa region of Arlington Heights. I have labeled the two sites as Site A, and Site B.

In Site A, the trail is suffering from washout, caused by human activity. The original trail traversed a very rocky patch, and as people moved to avoid the rocks they widened the trail, and moved on to a more fragile section of the hillside. This in turn has led to the soil on the hillside becoming less retained, and washing out. I propose that the solution to this is redefining the trail, so as to keep people off the hillside, and making the trail more accessible.

Redefining the trail, and controlling the washout: The main issue is that so many people stray from the proper trail. This has widened the trail for the normal 4ft, to 12 ft. To correct this I will be moving a large (8ft) log across one of the places that people frequently walk across, and I will be moving two large rocks to block off the other end. (see diagram)

The log is intended to age gracefully, and decompose once it has served its purpose of redefining the trail. Due to this, be doing nothing to embed it, other than dig a trench, and tamp the dirt. From my experiences, this will be very secure. The log I am using (see images) will be dragged to the site (not a very far distance) using ropes. If the log needs to be cut (which I believe it does not) I will set up an axe yard, and have scouts use a saw.

For the movement of rocks, I will be employing techniques that I have used while on trail crews in with the Appalachian Mountain Club. The scouts will use rock bars to optimize leverage, and transport the rocks I have selected (see images) to the site. Setting the rocks will involve digging a large hole to fit the rock, and then making sure that the rock is very secure. Each of these rocks will be quite the task to move, but they will also form a permanent border for the trail.

To make the trail more accessible, I intend to have scouts remove many of the small to medium-sized rocks that litter it. These rocks are what I believe caused people to stray from the trail in the first place, as they pose a hazard to ankles, especially for the more aged. Many of these rocks are not embedded in the soil, so they are not preventing erosion.

The final part of my plan is to stimulate the rejuvenation of the hillside. To do this I will have scouts drag small branches and leaves over the area, as well as scatter seeds from native grasses on the dirt.

In Site B, the issue is the erosion due to water. The flow of rainwater is creating a gully that meanders down the trail. To correct this, there are two different structures I will be using:

The first structure is check-dam steps. These will be 6"6" pressure treated timbers laid perpendicular to the trail. The purpose is to slow the water flow, and give dirt particles a chance to settle. To prevent the area behind these bars from turning into a mud puddle, I plan to backfill 1-2 feet with 3 inches of crushed stones. The timbers will be embedded in the dirt, and two, 1 ft pieces of ½ inch rebar will be used to secure the downhill side of the timber. Additionally, the timbers extend 1 ft over the trail, on each side. Since the trail is naturally lower than the surrounding ground, the bits of wood that extend over the trail can be covered completely in dirt, to ensure security. There will be four of these steps, along the steepest section of the trail. (see diagram). The accessibility of the trail will not be affected by these check-dam steps.

The second structure will be a water bar. This is an angled (45 degree) log that will divert water off of the trail. I plan on using 8ft of a recently fallen tree (see picture) to serve this purpose, because the commercial 6"6" timbers will not be large enough. This log is located further than the one I will use in site A, but it will be a downhill journey, and with three competent scouts, it should not be difficult. This log will need to be cut, and to do that, I will either have scouts set up an axe yard and use a hand saw, or ask an adult to use a chainsaw. I plan to have the log divert the water into a hole that is filled with small, and crushed rocks. This will allow the water to disperse without causing additional erosion. The water bar will also extend beyond the borders of the trail. This is considered best practice by the manuals I have read.

The designs and structures that I am using in these two areas have been inspired by my observation while hiking, and the work I have done with the Appalachian Mountain Club. The proper control of human impact, and waterflow is essential in preserving the longevity of outdoor spaces. But, I do not want my changes to negatively affect the ambiance of the place, therefore, I am choosing to use natural materials as frequently as I reasonably can. Additionally, I want this to require no maintenance after completion. Because of this, I researched what larger scale trails use, and based my project off that.

Lowe's in Woburn: (781) 376-5500, Lowe's in Saugus: (781) 417-1027

Lalicata: <http://www.lalicatalandscape.com/>

Budget:

6"6"8' pressure treated wood -- 4 pieces  
(for the 4 check-dam steps)

Place: Lowe's

Cost: around \$32.00 each

Total cost: \$126.00 +tax (\$8.00) = \$134.00

Steel rebar -- 16 ft  
(for securing the steps and water bar)

Place: Lowe's

Cost: \$4.00 for 4 ft

Total cost: \$16.00

Crushed stone -- 1 cubic yard  
(for backfilling the steps)

Place: lalicata landscaping

Price: 45 dollars per cubic yard

Total cost \$45.00

Total cost: \$195.00